Oregon SCIENTIFIC

Wireless Ultra-Violet (UV) Sensor with LCD Display Model: UVR138

User Manual

WIRELESS ULTRA-VIOLET (UV) SENSOR WITH LCD DISPLAY

MODEL NO. UVR138

USER'S MANUAL

EN

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INTRODUCTION

Congratulations on your selection of the Oregon Scientific™ UVR 138 Ultra-Violet (UV) Sensor. This sensor records the UV levels radiated by the sun and transmits that data to an indoor weather station. When used together with a main unit weather station, readings taken from this sensor can provide information about UV trends and maximum sun exposure times before the skin starts to burn.

This UV sensor is compatible with new Oregon Scientific weather stations, such as:

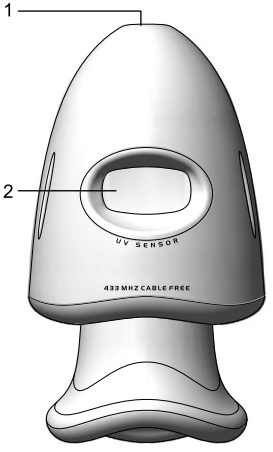
- BAR998HGN
- BAR321HGN

In this box you will find:

- UVR138 remote Ultra Violet sensor
- User guide
- Wall mount
- Ground anchor
- 4 UM-3 (AA) 1.5V alkaline batteries

PRODUCT OVERVIEW

FRONT VIEW



1. UV sensor.
2. LCD screen.

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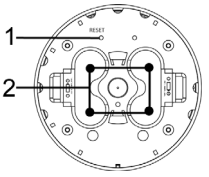
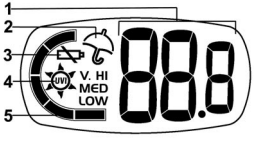
BOTTOM VIEW



1. **RESET** button.
2. Battery compartment.

LCD



1. Ultra-Violet Index (UVI).
2. Umbrella icon shows when UV levels get dangerously high.
3. Low battery indicator.
4. UV Index icon.
5. UV level indication.

GETTING STARTED

The UVR 138 records Ultra-Violet light levels and then transmits this data to a main (indoor) unit. It is splash proof and should be placed in an area with maximum exposure to the sun.

NOTE The sensor range is up to 100 meters (328 feet) with no obstructions, but if the main unit has a shorter range than the sensor, you may have to move the sensor closer for reception.

INSTALLING THE BATTERIES

1. Place remote unit as close as possible to the main unit, no more than 100 meters (328 feet) away.
2. Unscrew the top of the sensor.
3. Remove the battery compartment covers.
4. Insert the batteries. Match the polarity, as shown on the battery compartment.
5. Replace the battery compartment lid. Press **RESET** and secure.

NOTE Replace the batteries whenever the low battery icon appears:

- on the main unit UV index display.
- on the UVR138 LCD screen.

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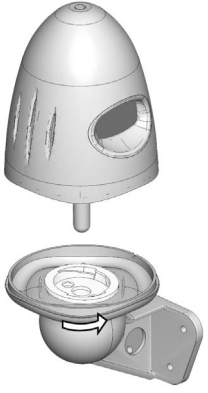
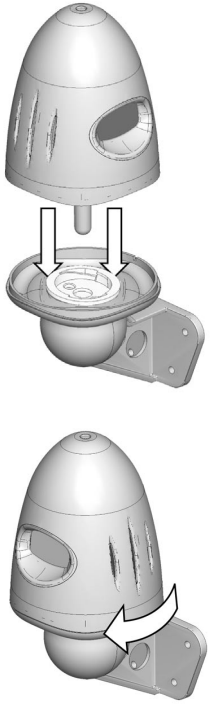
SET UP

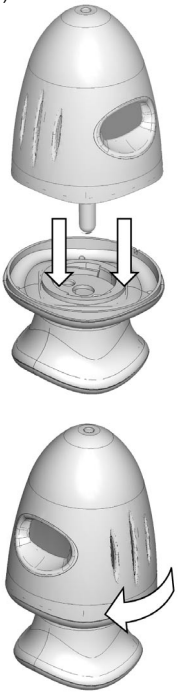
(WALL MOUNT)

Use this fixture to attach the UV sensor to a vertical wall. First make sure the surface is smooth and flat. Fix the mount to the wall by inserting each of the four screws through the screw holes on the flat surface of the mount and into the wall. Make sure the LCD screen faces away from the wall.



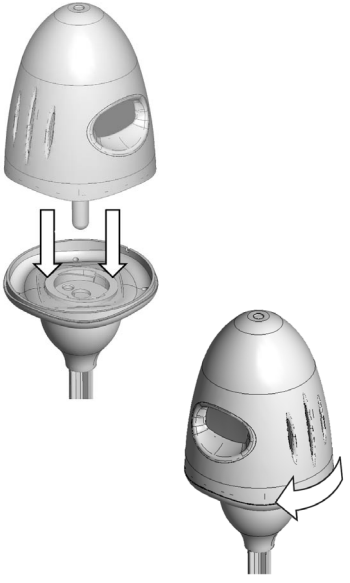


(TABLE STAND)



(GROUND ANCHOR)

Use this fixture to anchor the UV sensor into soft ground e.g. soil or sand. For maximum safety, insert the anchor into the ground slowly and carefully.



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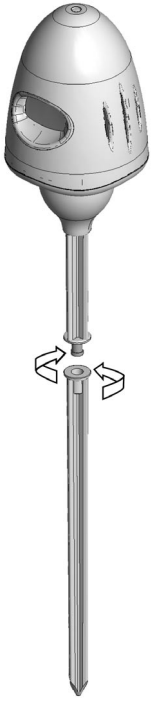

Position the sensor using the wall mount, table stand, or ground anchor options. For best results:

- Place in a location with maximum exposure to the sun.
- Place the sensor away from electrical or mechanical objects.
- Place the sensor away from moisture.
- Do not place the sensor more than 100 meters (328 feet) from the main (indoor) unit.
- Position the sensor so that it faces the main (indoor) unit. Minimize obstructions such as doors, walls, and furniture.

The sensor range is up to 100 meters (328 feet) with no obstructions, but if the main unit has a shorter range than the sensor, you may have to move the sensor closer for reception. You may need to experiment with various locations to get the best reception.

This icon will blink on the main unit UV value display box when it searches for the sensor. It stops blinking when the sensor has been found.

NOTE Once the batteries are in place, the sensor will transmit signals every 40 seconds. It will take over an hour before all measurements on the main unit are displayed (e.g. UVI history) because some measurements are hourly averages.

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RESET

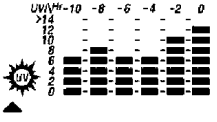
The **RESET** button is located near the battery compartment. Press it whenever you change the batteries, or whenever performance is not behaving as expected (e.g., unable to establish radio frequency link with the main unit). This will return all settings to default values, and you will lose all stored information.

BACKGROUND INFORMATION

NOTE The following settings and information only apply if you have an Oregon Scientific compatible weather station.

On the main unit weather station, UV readings are recorded and interpreted in two areas of the display:

1. UV bar chart display.



2. The UV value display.

Based on readings transmitted from the sensor, the main unit can calculate maximum sun exposure times before the skin starts to burn. Each calculation can be customized for a specific user (1-4). Calculations are updated every time a new UV reading is received from the sensor. This calculation is based on three factors:

- SKIN TYPE (user-selectable)
- SPF (user-selectable)
- UV DATA (collected by sensor)

SPF (Sun Protection Factor)

Individuals react differently to sun exposure. The SPF indicates the level of protection needed when time is spent under the sun. The selectable SPF range is between 1-50 and relates to how susceptible you are to getting sunburn. Enter an SPF setting that corresponds to the SPF protection you choose for your sunscreen products.

- 1-11 (low protection)
- 12-29 (moderate protection)
- 30-50 (high protection)

For example, if your skin is sensitive and you get sun burnt easily, you will need a lot of protection from the sun's UV rays. In this case you should use a sunscreen with an SPF rating of 30-50 for maximum safety, then input the respective SPF in the main unit setting for accurate calculation.

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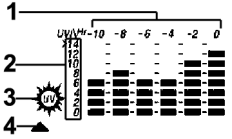
UV INDEX BAR CHART DISPLAY

The UV index bar chart shows ultra-violet level patterns taken over ten hours. Ultra-violet level readings are taken hourly, averaged, and then displayed as an index. Measurements are displayed in 2-hour increments (-10, -8, -6, -4, -2, 0).

For example, (-10) indicates the average hourly reading taken ten hours ago, (0) is the most current average. Readings will show approximately one hour after you setup the sensor.



1. Current (0) / ten hours ago (-10).
2. UVI \ Hr the average UVI index for a given hour.
3. UV indicates that you are in UV mode.
4. UV bar chart display is active.

NOTE If the UV icon is not visible on the main unit bar chart display box, press **MODE** to enter the bar chart display.

USER SETTINGS

Under the same exposure to the sun, individuals will react differently. To account for this difference, settings can be customized for up to 4 users. This way, information is tailored to each individual for more accurate results. For example, if there is a mum, dad, sister, and brother in a house, you can assign a user number to each person such as mum (1), dad (2), sister (3), and brother (4).

SETTING SKIN TYPE AND SPF

1. Press **SELECT** to choose UV mode.

2. If the UVI icon is not visible on the main unit UV display box, press **MODE** to enter UV mode.

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3. Press **CHANNEL** repeatedly to display UV exposure time and to select a user profile (1-4).
4. Press and hold **MODE** for 2 seconds, skin type settings will blink.

5. Press **UP** or **DOWN** to select skin type.

Skin Type	Tan	Burn	Hair color	Eye color
1	Never	Always	Red	Blue
2	Sometimes	Always	Blond	Blue/Green
3	Always	Rarely	Brown	Gray/Brown
4	Always	Never	Black	Brown

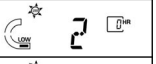
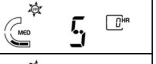
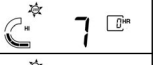
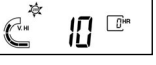
6. Press **MODE** to confirm, the SPF setting will blink.

SPF	Level of protection
1-11	Low
12-29	Medium
30-50	High

7. Select SPF value by pressing **UP** or **DOWN** (Choose the same value as you would for your sunscreen products).
8. Press **MODE** to confirm.

UV INDEX DISPLAY

The Ultra-Violet index is based on the World Health Organization (WHO) recommended UV exposure levels, and should serve only as a guideline. If UV levels reach dangerous levels of 11 or higher, the index will start to flash.

UV Index	Level	Icon Display
0 ~ 2	Low	
3 ~ 5	Medium	
6 ~ 7	High	
8 ~ 10	Very High	

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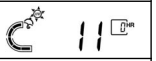
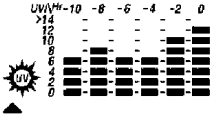
UV Index	Level	Icon Display
11 ~ 25	Extremely High	
Over 25	Over Range	

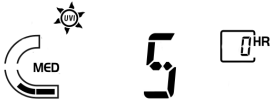
CAUTION: UV exposure times are updated each time the sensor transmits new readings to the main unit. Calculations do not take into account how long you have already been exposed to the sun, so it is important to note that the displayed exposure times will not accurately reflect how much longer you can stay under the sun if you have already been exposed for some time.

MAIN UNIT INFORMATION DISPLAY

1. Press **SELECT** to choose UV mode.



2. Press **MODE** to enter UV display .
3. Press **CHANNEL** to display UVI Exposure time.



4. Press **CHANNEL** repeatedly to switch between users (1-4).

VIEW CURRENT AND PAST UVI VALUES

Current and past UVI values can be recalled by pressing the **HISTORY** button.

The number displayed in the top right box indicates the time the UV index was taken. For example, the average UV index recorded ten hours ago is indicated by a (-10), the most current average is (0). The values monitored range from (-10 to 0).

NOTE If no keys are pressed within 10 seconds, the value displayed will revert to the most current index (0).

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TROUBLESHOOTING

Symptom	Remedy
(----) "LOST LINK" is displayed	On the main unit press and hold **CHANNEL** and **MEMORY** in UV mode to manually force a UV sensor search
	Wait 2 hours so main unit can collect enough data for an average
	Press the remote sensor **RESET** button
Main unit cannot locate remote unit: icon blinks	Check batteries
	Make sure they are not too far apart
	Press the remote sensor **RESET** button
UV sensor readings seem too low	Make sure the sensor is not in the shade. Place in an area with maximum exposure to the sun
	Make sure UV sensor is not covered by dirt. Use a damp cloth to gently wipe the surface of the UV sensor clean

SPECIFICATIONS

Main unit with stand:	141 x 80mm (5.55 x 3.15 inches)
Wall-mount:	80 x 73 mm (3.15 x 2.87 inches)
Ground anchor:	80 x 340 mm (3.15 x 13.39 inches)
Weight:	250 grams/ 0.55 lbs (without battery)
Operating temperature range:	-20 ºC to 60 ºC (-4 ºF to 140 ºF)
UV Index range:	1-25
RF frequency:	433MHz
Transmission range:	Up to 100 meters (328 feet) with no obstructions
Transmission cycle:	40 seconds
Channel:	1
Power:	4 UM-3 (AA) 1.5V alkaline batteries

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SAFETY AND CARE

This product is designed to give you years of service if handled properly. Observe the following guidelines:

- Clean the unit with a damp cloth and mild detergent. Avoid dropping the unit or placing it in a high-traffic location.
- Never immerse the unit in water. This can cause electrical shock and damage the unit.
- Do not subject the main unit to extreme force, shock, or fluctuations in humidity.
- Do not tamper with the internal components.
- Do not mix new and old batteries or batteries of different types. Do not use rechargeable batteries with this product.
- Remove the batteries if storing this product for a long period of time.
- Do not scratch the LCD display.
- Do not make any changes or modifications to this product. Unauthorized changes may void your right to use the product.
- The technical specifications for this product and the contents of the user guide are subject to change without notice.
- Images not drawn to scale.

ABOUT OREGON SCIENTIFIC

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We hope you will find all the information you need on our website, however if you'd like to contact the Oregon Scientific Customer Care department directly, please visit www2.oregonscientific.com/service/support

OR

call 949-608-2848 in the US.

For international enquiries, please visit www2.oregonscientific.com/about/international/default.asp

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EC-DECLARATION OF CONFORMITY

This product contains the approved transmitter module that complies with the essential requirements of Article 3 of the R&TTE 1999 / 5 / EC Directive, if used as intended and the following standards have been applied:

Safety of information technology equipment
(Article 3.1.a of the R&TTE Directive)
Applied Standard **EN 60950 : 2000**

Electromagnetic compatibility
(Article 3.1.b of the R&TTE Directive)
Applied Standards
ETSI EN 301 489-1-3 (Ver.1.4.1) : 2002-08

Efficient use of radio frequency spectrum
(Article 3.2 of the R&TTE Directive)
Applied Standards
ETSI EN 300 220-3 (Ver1.1.1) : 2000-09

Additional information:

The product herewith complies with the requirements of the Low Voltage Directive 73 / 23 / EC, the EMC Directive 89 / 336 / EC and carries the CE marking accordingly.

Carmelo Cubito
Agrate Brianza (MI) / Italy January 2004
Manufacturer's EU R&TTE Representative

CE

COUNTRIES RTTE APPROVAL COMPLIED
All EC countries, Switzerland (CH)
and Norway (N)

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